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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/728,504	12/05/2003	Pat Y. Mah	MAH-37	9099
7590	09/26/2005		EXAMINER	
Curtis L. Harrington Suite 250 6300 State University Drive Long Beach, CA 90815			PERRIN, JOSEPH L	
			ART UNIT	PAPER NUMBER
			1746	

DATE MAILED: 09/26/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/728,504	MAH, PAT Y.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Joseph L. Perrin, PhD	1746	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

1) Responsive to communication(s) filed on \_\_\_\_.  
 2a) This action is FINAL.                    2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

4) Claim(s) 1 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_ is/are allowed.  
 6) Claim(s) 1 is/are rejected.  
 7) Claim(s) \_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on 05 December 2003 is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date. ____
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date ____.	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
	6) <input type="checkbox"/> Other: ____.

## DETAILED ACTION

### *Information Disclosure Statement*

1. It is noted that an Information Disclosure Statement under 37 CFR 1.97 for the present application has not been received by the Office. If Applicant believes this to be in error, Applicant is urged to submit documentation supporting a proper filing of any previously submitted information disclosure statements in order to have such disclosures considered by the Office.

### *Drawings*

2. The drawings are objected to because in Figure 4, the term "TRANSDUCERT" is misspelled and should be changed to --TRANSDUCER--. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If

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the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Specification***

3. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

4. The abstract of the disclosure is objected to because the abstract exceeds 150 words. Correction is required. See MPEP § 608.01(b).

### ***Claim Rejections - 35 USC § 112***

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential elements, such omission amounting to a gap between the elements. See MPEP § 2172.01. The omitted elements are: an ultraviolet light source.

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It is noted that applicant's claim limitation of "ultraviolet light output structure" does not include an ultraviolet light source but only an "output structure", which reads on any nozzle capable of outputting ultraviolet light. An ultraviolet source is essential for the claimed such output structure.

***Claim Rejections - 35 USC § 102***

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,309,590 to GIULIANI et al. ("GIULIANI"). GIULIANI discloses a cleaner having a housing, an ultrasonic radiating structure with piezoelectric transducer driven by driver circuitry, and an output structure near the ultrasonic radiating structure (see entire document, especially Figures 1-3 and relative associated text). Recitation of GIULIANI reads on applicant's claimed invention.

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

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10. Claim 1 is rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent Publication No. 2004/0250844 to KUMAZAKI. KUMAZAKI discloses a cleaner having a housing, an ultrasonic radiating structure with piezoelectric transducer driven by driver circuitry, and an output structure near the ultrasonic radiating structure (see entire document, especially Figure 1 and relative associated text). Recitation of KUMAZAKI reads on applicant's claimed invention.

11. Claim 1 is rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent Publication No. 2005/0050659 to CHAN *et al.* ("CHAN"). CHAN discloses a cleaner having a housing, an ultrasonic radiating structure with piezoelectric transducer driven by driver circuitry, and combining with a light emitting diode ultraviolet source near the ultrasonic radiating structure (see Figures 26-27 and paragraph [0085]). Recitation of CHAN reads on applicant's claimed invention.

12. Claim 1 is rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent Publication No. 2005/0204490 to KEMP *et al.* ("KEMP"). KEMP discloses a cleaner having a housing, an ultrasonic radiating structure with piezoelectric transducer driven by driver circuitry, and combining with a UV light source (see Figure 1 and relative associated text and paragraph [0008]). Recitation of KEMP reads on applicant's claimed invention.

### ***Conclusion***

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: U.S. Patent Publication No. 2005/0150066 to LIN, U.S. Patent No.

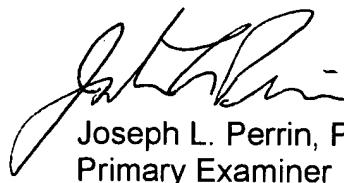
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6,624,133 to MCKENZIE et al., U.S. Patent No. 6,391,061 to HORTEL et al., U.S. Patent No. 6,376,444 to HORTEL et al., & JP 2003-49354, each which disclose conventional portable ultrasonic cleaners.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph L. Perrin, PhD whose telephone number is (571)272-1305. The examiner can normally be reached on M-F 7:00-4:30, except alternate Fridays.

15. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael E. Barr can be reached on (571)272-1414. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

16. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Joseph L. Perrin, PhD  
Primary Examiner  
Art Unit 1746

jlp